## **Class Descriptions**

| Room   | Session 1: 8:00-8:30   | Session 2: 8:35-9:05   |  |
|--------|--|--|--|
| A204   | A Comprehensive Guide To The FIRST Dean's List Award  As a 2025 FIRST Robotics Competition Dean's List Winner, Mahi Madhan Kumar will share a comprehensive guide to navigating the Dean's List Award process, designed for both students and coaches. This breakout session will provide an inside look at what makes a strong nomination, practical strategies for writing impactful essays, and key insights into preparing for Dean's List interviews.  Drawing from firsthand experience, Mahi will breakdown common challenges, highlight what judges look for, and offer actionable tips to help nominees and their mentors present their achievements in the most authentic and compelling way. Whether you are a student aspiring to be nominated or a coach supporting your team, this session will equip you with the tools and confidence to succeed in the Dean's List journey. |  |  |
| A206   | Leadership & Season Training  We will be talking about how we train our students for leadership opportunities like being a captain, FTC/FLL Mentoring, and Leads/Deputies.   |  |  |
| A208   | Wait We Can Get 6 Now?  Strategy evolves in the era of 6 Ranking Points. Explore how this change alters pre-season priorities, competitive balance, ranking variance, and alliance selection chaos.  |  |  |
| "Cave" | Safety FIRST Safety around shop equipment, tools, robots, and in general. Prevent accidents and injury. Hear personal stories and examples!  |  |  |
| A203   | FRC Programming Roundtable  A mix of lectures and guided discussions on topics such as FRC programming, organizing and planning to work with the schedule of the rest of the team, and overall successes/struggles from past year(s) shared from us and attending teams to inspire ideas to facilitate future success.   |  |  |
| A201   | Optimizing 3D Printing for Robotics  3D printing has revolutionized how robotics teams bring their designs to life, but relying on default settings and basic techniques can limit the capability of your robot parts. Explore ways to take your 3D printed parts from good to exceptional by evaluating the forces on your parts, dive into CAD design choices, slicer settings, print orientations, and others that affect strength and durability. Discuss when 3D printing is the best option and when other manufacturing methods are better suited to your needs. By understanding the trade-offs and making informed decisions, you'll maximize the performance and reliability of your robot.  | Electronic Glow-Up Get a hands-on crimping and wire management lesson to build an amazing electrical system that makes your robot inspector happy. |  |

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|------|---|--|
| A205 | Exploring PID Control Through Simulation This 30 minute presentation will teach the basics of PID controllers using a free online simulation tool. We will use the simulator to show how different P, I, D, and feedforward terms affect the controller, as well as how gravity, friction, and deadtime affect the controller.  | Understanding FRC batteries for Optimum Performance Lead acid AGM batteries play a critical role in powering robots, making their understanding, setup, maintenance, and safety paramount. This seminar provides an exploration of best practices for managing this essential component from unboxing to disposal. Gain valuable insights into battery electrochemistry, proper battery handling, wiring and mounting, charging techniques, testing and storage protocols to maximize performance and longevity. Learn why batteries lose their capacity over time. We will also cover critical safety measures to prevent accidents and react to acid spills. |
| A209 | Creating an Inclusive Team for LGBTQ+ & Neurodivergent Students Creating an inclusive environment is essential for every team's success. This session explores practical strategies to ensure LGBTQ+ and neurodivergent students feel welcomed, respected, and empowered within your robotics program. Learn how to foster psychological safety, implement inclusive language, and design team norms that celebrate diversity. Attendees will leave with actionable tools and resources to build a culture where every student can thrive—on and off the field.   |  |
| A210 | Beyond the Robot: Engaging with Judges  Effective communication with judges is a critical skill for FIRST FRC teams aiming to stand out in competition. This presentation will provide teams with practical strategies for engaging with judges in a way that highlights their team's strengths and achievements. We will cover essential topics such as how to convey your team's story, the importance of clarity and conciseness, and how to answer questions from the judges. Whether you're a rookie team or a seasoned veteran, this presentation will offer insights and tips that can help elevate your team's performance. |  |

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|------|--|----------------------|
| G203 | Scouting 101 Provide insight into the creation of a scouting form, usages and benefits for individual teams. Bought match and pit scouting will be discussed along with practice scouting scenarios. |                      |